



International Energy Agency
Energy Conservation in
Buildings and Community
Systems Programme

ENERGY EFFICIENT TECHNOLOGIES FOR GOVERNMENT BUILDINGS - NEW AND RETROFITS

Seventh Workshop and Industry Forum



Organized by

VENTILATION/ENERGY APPLICATIONS, PLLC

**Las Vegas, Nevada, USA
January 26-28, 2011**

Workshop information

This annual government building energy technology workshop is designed for building energy managers, design engineers and architects, contractors, decision-makers, energy auditors and Energy Services Companies. Previous workshops took place in Orlando (2005), Chicago (2006), Dallas (2007), New York (2008), Chicago (2009) and Orlando (2010) and brought together more than 200 international facility energy experts. This workshop will provide a forum to share information on different national and international energy saving technologies, as well as measures for new buildings and building retrofits. Past workshop information can be viewed at <http://www.annex46.org> by clicking on the Workshops and Seminars tab.

The 2011 7th Annual Government Building Energy Efficiency Technology Workshop will be conducted in conjunction with the 2011 Winter ASHRAE meeting. The theme of this Workshop is energy efficiency optimization for individual buildings and multi-building sites in combination with appropriate renewable systems.

During the three days, the following topics will be addressed:

Wednesday

- Current Federal Government Energy Policy and Requirements
- Energy Master planning for communities and Army installations to Satisfy Policy and Regulatory Requirements

Thursday & Friday

- Designing and Retrofitting Buildings for Ultra-low Energy Consumption
 - Maximizing Insulation
 - Minimizing infiltration
 - High efficient lighting
 - Low energy use HVAC
 - Efficient Appliances and other plug-in devices
- Effective Application of small scale central energy plants, solar hot water heating and biomass systems

The Workshop is endorsed by the American Society of Heating Refrigeration and Air-Conditioning Engineers (ASHRAE), Department of Energy Federal Energy Management Program (DOE FEMP) and the International Energy Agency Energy Conservation in Buildings and Community Systems Program (IEA ECBCS) Annex 46 "Holistic Assessment Tool-kit on Energy Efficient Retrofit Measures for Government Buildings (EnERGo)" and Annex 51 "Energy Efficient Communities".

A separate mini exhibition will be organized concurrently with the workshop on January 27-28 to demonstrate state-of-the-art energy conservation and renewable technologies, practices and services.

For more information on organizational issues, please contact Ms. Courtney Woody at cwoody.vea@gmail.com and Mr. Al Woody at awoody@comcast.net or (248) 891 5519 for technical issues.

Workshop venue:

The 7th annual workshop will be held at the Flamingo Las Vegas Hotel & Casino located at 3555 Las Vegas Blvd. South, Las Vegas, Nevada, 89109. Additional information about the hotel can be found at the <http://www.flamingolasvegas.com>.

Reservations will need to be made independently and can be done so by calling (888) 373-9855. . To receive a discounted rate, please provide the group code **SFVE11** when making your arrangements. VEA has negotiated a room rate for all attendees at \$104/night + 12% room tax, which includes one (1) complimentary breakfast coupon for Paradise Garden Buffet over the dates of January 25-27, 2011. Please note that the deadline to make your reservation is Monday, December, 27, 2010 otherwise we cannot guarantee availability of the pre-negotiated rate of \$104/night + 12% room tax.

Internet access is available at the UPS Store located in the hotel close to the workshop site. Prices vary depending on the length of time needed. Internet is also available in guestrooms for \$13.99 for a 24 hour period (price is subject to change without notice).

Registration:

Registration can be made by completion of the attached registration form and faxed back to (231) 747-8419. Within five (5) business days we will provide you a receipt and confirmation number for your records. Please note the number of participants is limited to 300. To assure that you are included, please have your registration submitted by Dec 17 , 2010 . Please note your registration cost includes the workshop, break refreshments and lunch on the meeting days.

Cost:

	<u>Up to 12/17/2010</u>	<u>After 12/17/2010</u>
Complete 3 day conference:		
ASHRAE members & Government employees -	\$450	\$600
Others -	\$625	\$750
One day attendance:		
ASHRAE members & Government employees -	\$200	\$250
Others -	\$300	\$350

For speakers and current students there is no charge to attend the conference. There will be no refunds of registration fees after January 12, 2011.

Transportation:

Recommended Airport: McCarran International Airport (LAS)

Transportation from airport to hotel:

Several shuttle companies operate from McCarran International Airport to the Flamingo Las Vegas Hotel & Casino. Shuttles can be picked up at door 13 in the baggage claim area. Shuttle prices are approximately \$6.50 per person (one way) or \$12.00 with a roundtrip ticket purchased in advance. For more information please contact Showtime Tours at (702) 895-9976 or <http://www.showtimetourslv.com/AirportShuttle.aspx> for more information.

Taxi Cab: Taxi cabs are stationed at the airport and will take you directly to the hotel for approximately \$15.00 - \$20.00 one way.

Seventh Workshop and Industry Forum
“Energy Efficient Technologies
for Government Buildings- New and Retrofits”

January 26-28, 2011
Las Vegas, NV

REGISTRATION FORM
(Please print or type)

First and Last Name _____

Title _____

Organization _____

Address _____

Postal Code _____

City and State _____ Country _____

Phone: _____ Fax: _____

E-mail: _____

Speaker: ☐ Yes ☐ No

Student: ☐ Yes ☐ No

ASHRAE Member ☐ Yes ☐ No , Membership # _____

Government Employee: ☐ Yes ☐ No, Government Agency _____

Registration for Full Conference: _____

Registration for One Day: _____

Which Day: _____

Method of Registration Payment:

Amount _____

Credit card Type:

Master Card ☐

Visa ☐

American Express ☐

Card Number _____ Expiration Date _____

Please fax this form for payments by Credit Card to 231-747 8419

Please send checks to
Ventilation/Energy Applications, PLLC
6887 Breeze Point Dr.
Norton Shores, MI 49444

Checks should be made out to Ventilation/Energy Applications

Exhibitors Registration

A mini exhibition demonstrating state-of-the-art technologies, practices, and services resulting in building energy conservation will be organized on January 27-28, 2011 at the workshop site. Exhibitors will be provided with 8 ft long table top display space or with a 10 ft by 10 ft floor exhibit space. To learn how to register as an exhibitor and to reserve space for your company display, please contact Mr. Alfred Woody at awoody@comcast.net or (248) 891 5519. Exhibition space is limited to 25 displays. Exhibitors will be provided with two free workshop registrations and additional registrations will be charged at the government rate.

ENERGY EFFICIENT TECHNOLOGIES FOR BUILDINGS and COMMUNITIES

January 26-28, 2011

Preliminary Workshop Program

Wednesday, January 26. Plenary Session

7:30-8:00 Registration

- 8:00-8:20 Introduction - Alexander Zhivov (ERDC)/Al Woody (VEA)
- 8:20-8:45 Keynote - Katherine Hammack – US DOD, Assistant Secretary of the Army (Installations, Energy & Environment)
- 8:45-9:10 Lynn Bellenger – ASHRAE, President
- 9:10-9:35 Recent Buildings Related Energy Laws and Regulations – Cyrus Nasser, Department of Energy, Federal Energy Management Program
- 9:35-10:00 European “Energy Performance of Buildings Directive” and its Implementation - Eduardo Alberto Maldonado, University of Porto, Portugal

10:00-10:20 Coffee Break

- 10:20-10:45 R&D for Net-zero Energy and Carbon Emissions in Buildings and Communities - Energy Conservation in Buildings and Community Systems (IEA ECBCS) Programme – Morad Atif, Director General, Institute for Research in Construction, National Research Council , Canada
- 10:45-12:10 ASHRAE/USGBC/IES Standard 189.1 - Foundation for High Performance Green Army Buildings – Kent Peterson, P2S Engineering

12:10-13:00 Lunch

- 13:00-14:00 Installation Management Community Energy Program - Lt. Gen. Rick Lynch, Commander, Installation Management Command
- 14:00-14:30 Metering, TBD
- 14:30-15:30 IMCOM energy managers open discussion, issues, and solutions
- 15:30-15:50 Coffee Break

Energy Study to meet “Energy Independence and Security Act 2007” requirements for new buildings under Military Transformation program

- 15:50-16:05 Goals and Objectives - George Lea/Daniel Carpio, USACE HQ
- 16:05-16:20 Approach - Alexander Zhivov, ERDC

- 16:20-16:50 Passive House Envelope, George Zielke, Zielke Architect, Germany
- 16:50-17:20 Low Energy Lighting Concept - Halley.Fitzpatrick, Atilair Ten
- 17:20-17:50 Low Energy HVAC Concept, Stan Mumma Penn, State University, Al Woody, Ventilation/Energy Applications
- 17:50-18:10 Barracks and Office Buildings Study Results – Richard Liesen, ERDC/Peter Ellis BigLadder Software
- 18:10-18:30 Dining Facilities and Maintenance Facilities Study Results – Michael Deru/Rois Langner (NREL)

Thursday, January 27. High Performance Buildings – New and Retrofits

- 8:00-8:10 Introduction
- 8:10-8:35 Low Energy Dining Facilities Concept, Verne Smith, FishNic
- 8:35-9:00 Top Tier Appliances - Kristen Taddonio, ENERGY STAR, EPA
- 9:00-9:25 Seven Cost-Effective Strategies for Energy Saving and Performance Gains in Federal Office Building - Vivian Loftness, Carnegie Mellon University
- 9:25-9:50 Barracks Retrofit at Ft Polk, Lessons Learned - Dale Herron, ERDC/Ray Patenaude, The Holmes Agency
- 9:50-10:15 Economic Optimization of Multifamily Buildings in Karlsruhe- Reinhardt Jank, Volkswohnung GmbH
- 10:15-10:35 Coffee Break**
- 10:35-11:00 Industrialized Technologies for Advanced Building Renovations – Mark Zimmerman, Swiss Federal Laboratories for Materials Science and Technology.
- 11:00-11:20 US Army Corps of Engineers HQ Prospective - Jerry Zekert, USACE HQ
- 11:20-11:50 US Army Engineer R&D Center Prospective - Michael Case/Alexander Zhivov/Richard Liesen, ERDC
- 11:50-12:50 Lunch**
- 12:50-13:20 Visions on Energy Planning - Jacques T.N. Kimman, SenterNovem Sittard, Netherlands
- 13:20-13:50 IEA Annex 51 “Energy Efficient Communities” - Reinhardt Jank, Volkswohnung GmbH, Germany

13:50-14:40 Case Studies and Approaches for Energy Efficient Communities:

- a) Bad Aibling : from the US Army installation to NetZero energy community – Alfred Kerschberger, RK-Stuttgart, Germany
- b) Sweden - Heimo Zinko, FVB AB and Dr. Bahram Moshfegh, Bahram, Linköping University
- c) City of Salzburg - Helmut Strasser, SIR Energie

14:40-15:10 Coffee Break

15:10-16:30 Case Studies and Approaches for Energy Efficient Communities
(Continued):

- d) Freiburg City - Reihhardt Jank, Volkswohnung GmbH
- e) Ft Irwin - Al Woody, Ventilation/Energy Applications & Dieter Neth, Cenergy GmbH
- f) Ft Bliss - Alexander Zhivov, ERDC /Stephan Richter, GEF
- g) Arlington County Energy Planning -Peter Garforth, Garforth International

16:30-17:00 Discussion

17:00-17:25 Energy Conservation in Existing Buildings & ASHRAE Std 100 – Rick Herman, McQuay International.

17:25-17:50 SELF - an Experimental Home for Future Building Technologies- Mark Zimmerman, Swiss Federal Laboratories for Materials Science and Technology.

Friday, January 28 – Review of Innovative Solutions and Technologies

8:00-8:10 Introduction

8:10-8:40 Passive House Design and Construction Practice in Frankfurt – GC Prospective - Andreas Schröder, FAAG TECHNIK GmbH, Germany

8:40-9:00 Adopting European Energy Efficient Envelope Designs to the US Market - Michael Sebold, Tremco and Joerg Birkelbach, Tremco/Illbruck

9:00-10:30 Air Tightness Update:

Introduction - Alexander Zhivov, ERDC

Case Studies:

Brian Ericson, PIE + TBD

Lee Durston, BCRA + TBD

10:30-11:00 Coffee Break

- 11:00-11:30 Approaching Carbon Neutral Cogeneration- Fred Betz, Affiliated Engineers
- 11:30-12:00 GE Jenbacher and Combined Heat & Power Applications – William Monk, General Electric

12:00-13:00 Lunch

- 13:00-13:30 Waste to Energy Conversion Strategies and Technologies – Viable Option for Ft Irwin - Mike Speck, IZES (Institute for Future Energy Systems) Saarbruecken, Germany
- 13:30-14:00 Twelve steps to a successful geo exchange project – Kirk Mescher, CM Engineering.

14:00-14:30 Coffee Break

- 14:30-17:20 Solar Water Heating Connected to District Networks - Design Guide and Case Studies

Alexander Zhivov, ERDC
Al Woody, Ventilation/Energy Applications
Andy Walker, NREL
Gerhard Stryi-Hipp, Fraunhofer ISE, Germany
Franz Mauthner, AEE INTEC, Austria
Dierter Neth, Cenergy, Germany
Stephan Richter, GEF, Germany
Arcon, Denmark
SOLID, Austria
Rolph Meissner, Paradigma , Germany

- 17:20-17:50 Discussion
- 17:50-18:00 Closing Remarks